Course Outcomes List

Physics 212: Physics for Scientist and Engineers-II

Given a potential energy function and a wavefunction, students will determine if the wavefunction is a solution to Schrodinger's equation and under what conditions it is a solution. *(Outcome is being assessed in the current term)*

Students will determine the thermodynamic behavior of a system through examination of the systems microstates. *(Not assessed in current term)*

Students will explain the phenomena of diffraction and interference. *(Not assessed in current term)*

Using the quantum theory, students will explain the photoelectric effect, determine the metal's work function, and determine the value of Planck's constant. *(Not assessed in current term)*

Given the total thermal energy in a system containing two Einstein solids and the number of molecules in each solid, students can predict the the probabilities of a particular macropartition and the change in entropy between any two macropartitions. *(Not assessed in current term)*

Given experimental data, students can determine the half-life of a radioactive substance by reading directly from the graph where the counts have reached 1/e of the initial value and by fitting an exponential function to the graph and interpreting the fit. *(Not assessed in current term)*